

Abstract of the Disclosure

A body insertable tubular stent includes discrete tubular segments in an alternating sequence of segments having high axial stiffness and segments having low axial stiffness. The lower axial stiffness segments are intended for placement along more severely curved regions of the body vessel, to provide a greater degree of stent conformity to the vessel. The more axially flexible segments can be provided by winding a metallic or polymeric strand at a higher pitch along such segments, thus to form a higher braid angle in a braided stent. In such cases the more axially flexible segments also exert a higher radial force when the stent is radially compressed. Alternatively, the stent can consist of multiple interbraided strands, with each strand incorporating a higher number of filaments (at least two) along axially stiff segments, and incorporating a lower number of filaments (at least one) along axially flexible segments. In another alternative version, the device is formed of one or more resilient strands, each strand including a biostable filament and a bioabsorbable filament, so that after implantation the radial force and axial stiffness gradually decrease in vivo.

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